

C - Rickards Invitational Ornithology - Rickards Invitational Div. C - 12-05-2020

Welcome to Rickards Ornithology!

Section 1 - Warmup :)

For questions 1-20, identify the bird depicted in the image. You may give either the common or scientific name, whichever is easier for you.

1. (3.00 pts)



Expected Answer: European starling

2. (3.00 pts)



Expected Answer: Greater roadrunner

3. (3.00 pts)



Expected Answer: Ovenbird

4. (3.00 pts)



Expected Answer: Ruby throated hummingbird

5. (3.00 pts)



Expected Answer: American crow

6. (3.00 pts)



Expected Answer: Killdeer

7. (3.00 pts)



Expected Answer: House sparrow

8. (3.00 pts)



Expected Answer: Common ground dove

9. (3.00 pts)



Expected Answer: Caspian tern

10. (3.00 pts)



Expected Answer: Pine siskin

11. (3.00 pts)



Expected Answer: Clapper rail

12. (3.00 pts)



Expected Answer: Sora

13. (3.00 pts)



Expected Answer: Baltimore orioles

14. (3.00 pts)



Expected Answer: Osprey

15. (3.00 pts)



Expected Answer: Wilson's snipe

16. (3.00 pts)



Expected Answer: Chimney swift

17. (3.00 pts)



Expected Answer: Green heron

18. (3.00 pts)



Expected Answer: American Kestrel

19. (3.00 pts)



Expected Answer: Painted bunting

20. (3.00 pts)



Expected Answer: California condor

Section 2

Questions 21-28 refer to the bird species depicted in the following image:



21. (3.00 pts) What is the common name of this bird species?

Expected Answer: Roseate spoonbill

22. (2.00 pts) What pigment is responsible for the pink color of this bird?

Expected Answer: Canthanxanthin

23. (2.00 pts) What is the function of its distinctive bill shape?

Expected Answer: Allows it to easily sift through mud

24. (2.00 pts) This species is described as being "gregarious." Briefly define what gregarious means.

Expected Answer: They associate in social groups

25. (3.00 pts)

This species has been used as an indicator for the restoration of the Everglades ecosystem. State one criteria that make a species an appropriate choice for use as an indicator species.

Expected Answer: Representative of the ecosystem Integrate system responses Show clear responses to system changes Can be effectively/easily monitored

26. (1.00 pts) True or False: This species lays clutches of translucent white eggs.

- True False

27. (1.00 pts) True or False: This species is currently classified as a species of Least Concern of becoming extinct.

- True False

28. (1.00 pts) True or False: This species exhibits sexual dimorphism.

- True False

Section 3

Questions 29-35 refer to the species depicted in the following image:



29. (3.00 pts) What is the common name of this bird species?

Expected Answer: Dark eyed junco

30. (2.00 pts) The adjective "rufous" is often used in descriptions of one group of this species. What does the word "rufous" mean?

Expected Answer: Red

31. (2.00 pts) Which group (subspecies) of this species has rufous sides?

Expected Answer: Oregon group

32. (2.00 pts) What are the two main components of this species' diet?

Expected Answer: Insects and seeds

33. (4.00 pts)

Plumage characteristics are correlated with rank hierarchy in this species. This is in accordance with the _____ hypothesis, which states that plumage variation evolved to indicate differences in an individual's ability to engage in _____ behavior.

 status-signaling agonistic**34. (1.00 pts)** True or False: Song rates of this species are commonly observed to increase when females are fertile.

- True False

35. (1.00 pts) True or False: This species usually builds its nest on the ground.

- True False

Section 4

Questions 36-42 refer to the species depicted in the following image:

**36. (3.00 pts)** Give the scientific name of this species.

Expected Answer: *Sturnella neglecta*

37. (2.00 pts) This species prefers to nest in "mesic" habitats. Briefly define what a mesic habitat is.

Expected Answer: A type of habitat with a moderate or well-balanced supply of moisture. OR Between xeric and hydric.

38. (2.00 pts)

A recent study on the nesting of this bird highlighted the shortcomings of nest density estimations caused by incomplete detectability. Give one reason that may make bird nests difficult to detect despite being present.

Expected Answer: Availability (systematic error relating to species-specific behavior) and perceptibility (sample error due to bad observers)

39. (2.00 pts) The aforementioned study used the "rope-drag" method to locate nests. Briefly describe what this method entails.

Expected Answer: You drag a rope across a field with noisy things on the rope that makes birds in the field fly out lol

40. (4.00 pts)

There exists a "hybrid zone" between this species and a closely related sibling species. Briefly define what a hybrid zone is and give one way such a region may form.

Expected Answer: +2 Hybrid zones exist where the ranges of two interbreeding species meet or the ranges of diverged intraspecific species meet. +2 Can form through evolution of a new lineage or secondary contact following allopatric speciation.

41. (1.00 pts) True or False: This species is the state bird of seven states.

- True False

42. (1.00 pts) True or False: This species is monogamous.

- True False

Section 5

Questions 43-48 refer to the species depicted in the following image:



43. (3.00 pts) Give the common name of this species.

Expected Answer: Warbling vireo

44. (2.00 pts) This species often nests in "riparian zones." Briefly define what a riparian zone is.

Expected Answer: Area bordering a river/stream/body of water

45. (2.00 pts) Which of the birds from Section 1 would the call of this species be most similar to?

Expected Answer: Painted bunting or "the one from Q19", etc.

46. (2.00 pts) The thermogenic capacity of this species has been observed to vary seasonally, in part due to Zugunruhe. Briefly define what Zugunruhe is.

Expected Answer: Migration anxiety.

47. (2.00 pts) Cowbirds will often lay their own eggs in the nests of this species. What is the term for this type of behavior?

Expected Answer: Brood parasitism +1 for just parasitism

48. (4.00 pts)

The aforementioned behavior has a large negative effect on the population of this species, which may be modeled using source-sink dynamics. Briefly describe the theoretical basis of source-sink dynamical modeling.

Expected Answer: Variation in habitat quality affects the population levels of organisms.

Section 6

Questions 49-53 refer to the species depicted in the following image:



49. (3.00 pts) Give the scientific name of this species.

Expected Answer: *Sialia sialis*

50. (2.00 pts)

The cowbirds that lay their eggs in the bird from the last section also lays its eggs in this bird species (those guys are jerks, I guess). However, although this species and the previous section's species are both capable of identifying cowbird eggs and kicking them out of their nest, this species does not do it nearly as frequently (~60% compared to ~90% of the time). Suggest a reason for this observation.

Expected Answer: Their nests are darker lit, more difficult to tell for sure.

51. (4.00 pts)

This species is pretty easy to attract into a nest box, if you like them. In fact, studies have shown that even placing chemical cues from common nest predators onto nest boxes will not cause them to avoid those boxes. Name two specific nest predator species of this bird.

Expected Answer: many possible, e.g. black rat snake, deer mouse, etc.

52. (2.00 pts) This species is monogamous, yet it is known to mate with individuals outside its monogamous mating pair. What is the term for this behavior?

Expected Answer: Extra-pair copulation or EPC or promiscuity

53. (4.00 pts)

Individuals of this species, after fledging their own young from a nesting box, have been observed to continue feeding nestlings occupying that same box, even if such nestlings were of a different species. Propose a reasonable explanation for this reproductive error.

Expected Answer: Location-based decision rule. i.e. they're attached to the box/location

Section 7 - Bird Calls

For questions 54-58, identify the bird species making the call in the recording below. You may give either the common or scientific name, whichever is easier.

2020 Rickards Invitational - Ornithology Calls



54. (7.00 pts) Give the common or scientific name of the species in Call 1 of the video.

Expected Answer: Red tailed hawk

55. (7.00 pts) Give the common or scientific name of the species in Call 2 of the video.

Expected Answer: Barred owl

56. (7.00 pts) Give the common or scientific name of the species in Call 3 of the video.

Expected Answer: Ruffed goose (they r babies 😊)

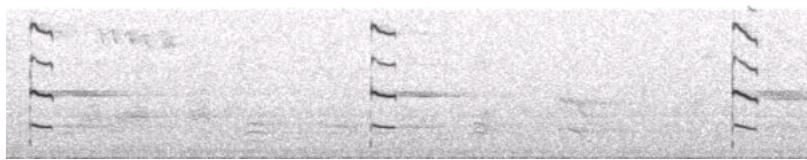
57. (7.00 pts) Give the common or scientific name of the species in Call 4 of the video.

Expected Answer: Black-billed cuckoo

58. (7.00 pts) Give the common or scientific name of the species in Call 5 of the video.

Expected Answer: Killdeer

59. (3.00 pts) Which of the previous calls does the following spectrogram depict:



- A) Call 1
- B) Call 2
- C) Call 3

- D) Call 4
- E) Call 5

60. (3.00 pts) Which of the previous calls does the following spectrogram depict:



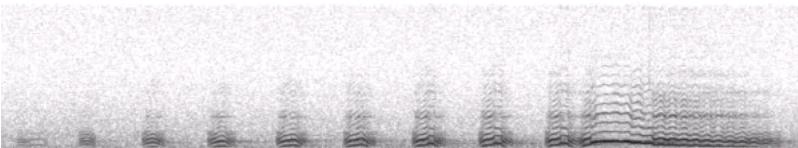
- A) Call 1
- B) Call 2
- C) Call 3
- D) Call 4
- E) Call 5

61. (3.00 pts) Which of the previous calls does the following spectrogram depict:



- A) Call 1
- B) Call 2
- C) Call 3
- D) Call 4
- E) Call 5

62. (3.00 pts) Which of the previous calls does the following spectrogram depict:



- A) Call 1
- B) Call 2
- C) Call 3
- D) Call 4
- E) Call 5

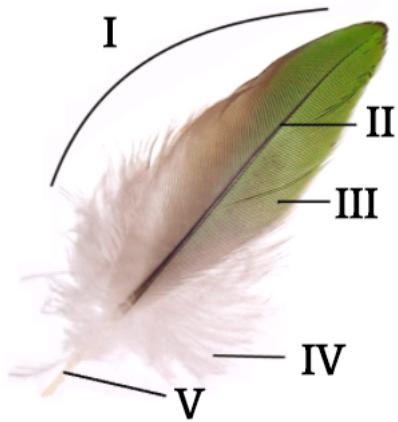
63. (3.00 pts) Which of the previous calls does the following spectrogram depict:



- A) Call 1
- B) Call 2
- C) Call 3
- D) Call 4
- E) Call 5

Section 8 - Feathers

For questions 64-68, give the name of the labeled region in the following diagram:



64. (2.00 pts) What is the anatomical term for the part of the feather labeled "I"?

Expected Answer: Rachis

65. (2.00 pts) What is the anatomical term for the part of the feather labeled "II"?

Expected Answer: Barbs

66. (2.00 pts) What is the anatomical term for the part of the feather labeled "III"?

Expected Answer: Barb or close pennaceous portion

67. (2.00 pts) What is the anatomical term for the part of the feather labeled "IV"?

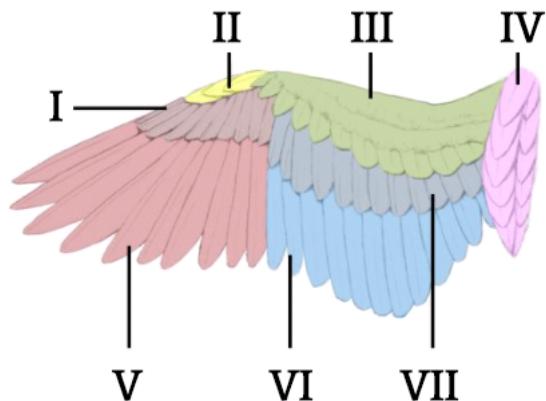
Expected Answer: Afterfeather or plumaceous portion

68. (2.00 pts) What is the anatomical term for the part of the feather labeled "V"?

Expected Answer: Hollow shaft or calamus

Section 9 - Wings

Questions XX-XX refer to the following feather diagram:



Use the following word bank in your answers:

- Primaries
- Secondaries
- Primary coverts
- Secondary coverts
- Marginal coverts
- Alula
- Scapulars
- Carpal edge

69. (2.00 pts) What is the term for the dull red region labeled "I"?

Expected Answer: Primary coverts

70. (2.00 pts) What is the term for the yellow region labeled "II"?

Expected Answer: Alula

71. (2.00 pts) What is the term for the green region labeled "III"?

Expected Answer: Marginal coverts

72. (2.00 pts) What is the term for the pink region labeled "IV"?

Expected Answer: Scapulars

73. (2.00 pts) What is the term for the light red region labeled "V"?

Expected Answer: Primaries

74. (2.00 pts) What is the term for the light blue region labeled "VI"?

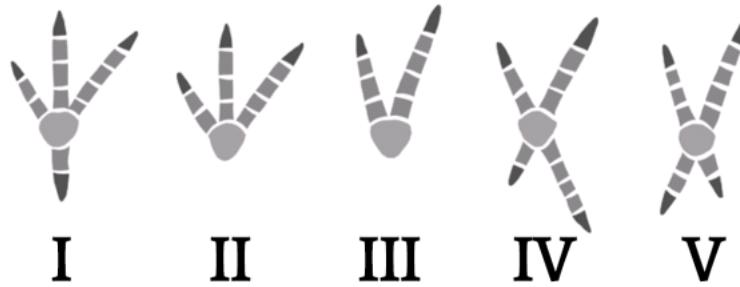
Expected Answer: Secondaries

75. (2.00 pts) What is the term for the dull blue region labeled "VII"?

Expected Answer: Secondary coverts

Section 10 - Digits

Questions 76-80 refer to the following diagram of bird digital arrangements:



76. (2.00 pts) What is the term for the digital arrangement labeled "I"?

Expected Answer: Anisodactyl

77. (2.00 pts) What is the term for the digital arrangement labeled "II"?

Expected Answer: Tridactyl

78. (2.00 pts) What is the term for the digital arrangement labeled "III"?

Expected Answer: Didactyl

79. (2.00 pts) What is the term for the digital arrangement labeled "IV"?

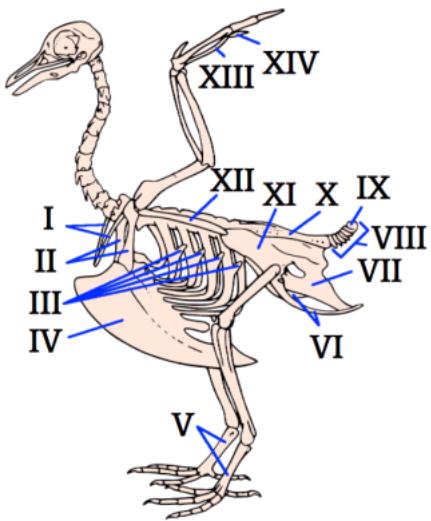
Expected Answer: Zygodactyl

80. (2.00 pts) What is the term for the digital arrangement labeled "V"?

Expected Answer: Heterodactyl

Section 11 - Skeleton

Questions 81-94 refer to the following bird skeleton diagram:



81. (1.50 pts) What is the term for the region in the diagram labeled "I"?

Expected Answer: Furcula

82. (1.50 pts) What is the term for the region in the diagram labeled "II"?

Expected Answer: Coracoid

A large rectangular box intended for drawing or labeling the diagram for question 82.

83. (1.50 pts) What is the term for the region in the diagram labeled "III"?

Expected Answer: Uncinate processes of ribs

A large rectangular box intended for drawing or labeling the diagram for question 83.

84. (1.50 pts) What is the term for the region in the diagram labeled "IV"?

Expected Answer: Keel

A large rectangular box intended for drawing or labeling the diagram for question 84.

85. (1.50 pts) What is the term for the region in the diagram labeled "V"?

Expected Answer: Tarsometatarsus

A large rectangular box intended for drawing or labeling the diagram for question 85.

86. (1.50 pts) What is the term for the region in the diagram labeled "VI"?

Expected Answer: Ischium

A large rectangular box intended for drawing or labeling the diagram for question 86.

87. (1.50 pts) What is the term for the region in the diagram labeled "VII"?

Expected Answer: Pubis

88. (1.50 pts) What is the term for the region in the diagram labeled "VIII"?

Expected Answer: Caudal vertebrae

89. (1.50 pts) What is the term for the region in the diagram labeled "IX"?

Expected Answer: Pygostyle

90. (1.50 pts) What is the term for the region in the diagram labeled "X"?

Expected Answer: Synascrum

91. (1.50 pts) What is the term for the region in the diagram labeled "XI"?

Expected Answer: illium

92. (1.50 pts) What is the term for the region in the diagram labeled "XII"?

Expected Answer: Scapula

93. (1.50 pts) What is the term for the region in the diagram labeled "XIII"?

Expected Answer: Carpus

94. (1.50 pts) What is the term for the region in the diagram labeled "XIV"?

Expected Answer: Metacarpus

Section 12 - Legislation

Questions 95-99 relate to bird law in the United States.

95. (2.00 pts) What act, passed in 1913, ended the use of migratory bird feathers for women's fashion?

Expected Answer: Weeks-McLean act

96. (2.00 pts) The act from the previous question was later replaced by what other act in 1918?

Expected Answer: Migratory Bird Treaty Act

97. (2.00 pts) The extinction of the Carolina parakeet, as well as overhunting of the snowy egret, served as a catalyst for what 1900 act?

Expected Answer: Lacey Act

98. (2.00 pts)

What act, passed in 1973 by President Nixon, was called the "the most comprehensive legislation for the preservation of endangered species enacted by any nation" by the Supreme Court?

Expected Answer: Endangered Species Act of 1973

99. (2.00 pts) In what year was the Bald Eagle Protection Act enacted?

Expected Answer: 1940

Section 13 - What is your favorite bird?

This is worth 10 points, because the last time I made it worth 1 point nobody answered it >:(

100. (10.00 pts) Tell me you and your partner's favorite bird(s).

Expected Answer: give points as long as they answer :p

END OF EXAM